

**ABSTRACT**

A device to implant impurities into a semiconductor wafer has a beam gun to shoot ions at a semiconductor wafer, a pair of ion gauges, an ion gauge controller to supply power to, and obtain information corresponding to a number of ions from, one of the ion gauges. The gauge controller has a parameter output, a control output and a pair of control inputs respectively associated with the pair of ion gauges, such that when a control signal is supplied to one of the control inputs, the ion gauge controller supplies power to, and obtains information corresponding to a number of ions from, the respectively associated ion gauge. The control output produces the control signal when either of the ion gauges is activated. The parameter output selectively produces a parameter signal based on a recipe selection. A first delay circuit connects the control output to one of the control inputs, after a delay, when the parameter output is on. A second delay circuit connects the control output to the other of the control inputs, after a delay, when the parameter output is off.